HOOSIER SURVEYOR



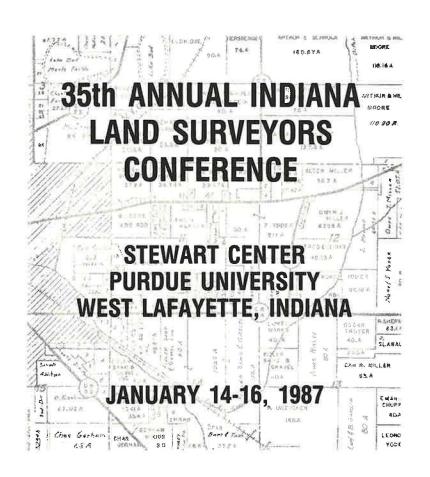
QUARTERLY PUBLICATION OF THE INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS, INC.

VOLUME 13 NUMBER 3 FALL 1986



AFFILIATED WITH THE AMERICAN CONGRESS ON SURVEYING & MAPPING





In This Issue:
Registration Board
to File Injunction
New ALTA/ACSM
Minimum Standards
An Original Stone?

And More . . .

HICKERSON INSTRUMENT COMPANY

and it's family of suppliers:

AERVOE PACIFIC - Marking Paint ALVIN & COMPANY - Drafting Supplies AQUA SURVEY & INSTRUMENT - Dip Needles BARNETTE INDUSTRIES - Rebar Caps BRUNTON - Pocket Transits CHICAGO STEEL TAPE - Rods & Supplies COOPER GROUP - Lufkin Tapes & Rules COUNCIL HAND TOOLS - Axes & Sledges CRAIN ENTERPRISES - Fiberglas Rods CROWN METAL PRODUCTS - Copperwelds CUBIC PRECISION - EDMs DIETIGEN - Drafting & Field Supplies DIXON TICONDEROGA CO. - Lumber Crayons FDC DRAFTING AIDES CORP. - Drafting GAMMON REEL, INC. - Gammon Reels JOHNSON-STALEY, INC. - Office Supplies KING TOOL, INC. - Concrete Scribes LASER ALIGNMENT - Lasers LENKER MANUFACTURING - Lenker Rods THE LIETZ COMPANY - Instruments & Supplies



Would like to thank the Indiana Society of Professional Land Surveyors and its members for their patronage.

HICKERSON INSTRUMENT COMPANY, INC.

6011 E. 34TH STREET - INDIANAPOLIS, INDIANA 46226

PHONE: (317) 547-7667 - INDIANA TOLL FREE: 1-800-382-1088

SERVING THE HOOSIER SURVEYOR SINCE 1939

1986 Board of Directors

Pat Cunningham - President 128 N. 3rd Street Lafayette, IN 47901 Home 317-474-6387 Off. 317-742-6479

E. Donald Bengel - President-Elect 703 Division Boad Valparaiso, IN 46383 Off. 219-462-0690

Gary R. Kent - Vice-President 9501 N. College Indianapolis, IN 46240 Home 317-844-4347 Off. 317-898-8282

Daniel I. Pusey · Secretary 1738 Klondike Road W. Lafayette, IN 47906 Home 317-463-5471 Off. 317-494-3416

John V. Schneider - Treasurer 3675 N. Post Road Indianapolis, IN 46226 Off. 317-898-8282

TERM EXPIRES 1986

Robert B. Bigelow Merrillville, IN 46410 Home 219-769-7337 Off. 219-883-9224

John E. Beals 901 Abington Pike Richmond, IN 47374 Home 317-962-6803 Off. 317-962-1023

Rollyn H. Blankenbeker 8 Cypress Drive - P.O. Box 157 Jeffersonville, IN 47131 Off. 812-282-4183

John R. McNamara 10679 Jefferson Road Osceola, IN 46561 Home 219-674-9721 Off. 219-284-9631

TERM EXPIRES 1987

Pat Cunningham 128 N. 3rd Street Lafayette, IN 47901 Home 317-474-6387 Off. 317-742-6479

9501 N. College Indianapolis, IN 46240 Home 317-844-4347 Off. 317-898-8282

Daniel I. Pusev 1738 Klondike Road W. Lafayette, IN 47906 Home 317-463-5471 Off, 317-494-3416

Roger Woodfill 202 W. High Street Lawrenceburg, IN 47025 Home 812-537-2481 Off. 812-537-2000 County Surveyors Office 812-537-1040

TERM EXPIRES 1988 55308 Jay Dee Street Elkhart, IN 46514 Home 219-294-5108 Off. 219-293-3611

Jenv L. Carter Zionsville, IN 46077 Home 317-873-5044 Off. 317-842-6777

3675 N. Post Road Indianapolis, IN 46226 Home 317-844-7560 Off. 317-898-8282

703 Division Road Valnaraiso IN 46383 Off. 219-462-0690

HOOSIER SURVEYOR

VOLUME 13, NUMBER 3, FALL 1986

(317) 872-8400

(317) 882-9301

(317) 742-6479

(317) 494-3416

F. Donald Benge

(219) 462-0690

(219) 462-7452

(317) 985-2321

Orwic A. Johnson

(812) 372-0996

James Q. Morely

Nominations

Library

Standards

(812) 464-9585

(317) 632-2361

Robert B. Bigelov

(219) 738-5250

Rex M. Bowman

(317) 494-3416

(317) 898-8282

(317) 494-3416

(317) 482-5141

H. Douglas Pierce

(219) 277-5381

(317) 632-2361

(317) 882-9301

(317) 653-5603

(812) 537-2000

Don Craig (317) 966-7541-304

Gary R. Kent, Edito

(317) 898-8282

(317) 872-8400

(219) 284-9631

(317) 898-8282

1987 Annual Convention

(317) 494-2165

1988 Annual Convention

Kenneth S. Curtis, Chairman

John R. McNamara

Joe M. Blevins

Roger Woodfill

Hoosier Surveyor

Alan Stanley, Chairman

Wesley L. Day

John H. Silnes

Publications

Daniel I. Pusey

Emil P. Beeg

Greg Deeds

Daniel I. Pusey

John H. Silnes

Scholar3hip

Committee Assignments (1986)

STANDING COMMITTEES

Headquarters Executive Committee Membership Joe M. Blevins, Chairman

Patrick N. Cunningham, President (317) 742-6479 E. Donald Bengel, President Elect (219) 462-0690 Gary R. Kent, Vice President (317) 898-8282 Daniel I. Pusey, Secretary

(317) 494-3416 John V. Schneider, Treasurer (317) 898-8282

BY-LAWS

Stephen L. Murray, Chairman (317) 423-9210 Robert Gross (317) 742-0295 John W. DeMais (317) 494-3416

Governmental Affairs Jacob E. Hall, Chairma

(317) 253-1533 Douglas K. Lechner (317) 862-2825 Byron M. Brady (219) 293-3611 Brad R. DeReame (317) 898-8282

> Chapters David I Pilz Chairman (219) 462-1158

Richard L. Hudson (219) 462-1158 **Convention Coordinating**

Daniel I. Pusev. Chairman (317) 494-3416 Gary R. Kent (317) 898-8282 Robert B. Bigelow (219) 738-5250

Education

Arthur Haase, Chairman (812) 885-4185 Danny K. Leek (812) 464-9585 Jacob E. Hall (317) 253-1533 Carl M. Anderson (317) 482-5141

Ethics Robert B. Bigelow, Chairman

Carl M. Andersor (317) 482-5141 (219) 357-3283

Finance John V. Schneider, Chairman

(317) 898-8282 Carl M. Andersor (317) 482-5141 **Public Relations** Jerry L. Carter, Chairman (317) 842-6777

(317) 872-4615

Peggy Archer Office Secretary

10339 Dunham Court West, Indianapolis, IN 46229 Home: 317-894-1484 Office: 317-546-0188

Douglas K. Herendeeri

670 Russell Lake W. Drive

John V. Schneider

E. Donald Bengel

SOCIETY LIAISON Collegiate Liaison Committee

Robert B. Bigelow, Chairman (219) 738-5250 John V. Schneider (317) 898-8282 John E. Beals (317) 962-1023

County Surveyor

John R. McNamara, Chairman (219) 284-9631 Rollyn Blankenbeke (812) 282-4183 E. Donald Benge

Indiana State Board of Registration

Wesley L. Day, Chairman Wesley L. Day, Chairman (317) 632-2361 Carl M. Anderson (317) 482-5141 Jacob E. Hall (317) 253-1533

Indiana Historical Land Marks Gary R Kent Chairman

Nelson Prall, Chairman (812) 275-7333 Philip Thornburg (317) 966-5924 Jerry L. Martin Carl M. Anderson, Chairman (812) 358-4458

Great Lakes Coordinating

Council Delegate (317) 253-1533

NSPS Governor Gary R. Kent (317) 898-8282 Daniel I. Pusev (Alt.) (317) 494-3416

AD HOC COMMITTEE

John V. Schneider, Advertising L.S. Exam Committee

Wesley L. Day John V. Schneide (317) 898-8282 (317) 842-6777

EDITOR'S NOTE

Deadlines for copy for various planned issues of the HOOSIER SURVEYOR are as follows:

Winter issue - January 31 Summer issue - July 31 Spring issue - April 30 Fall issue -October 31. The HOOSIER SURVEYOR is composed and reproduced by Marbaugh Engineering Supply Co., Inc., Indianapolis, IN.

The HOOSIER SURVEYOR is published quarterly by the INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS, to inform land surveyors and related professions, government officials, educational institutions, libraries, contractors, suppliers, and associated businesses and industries about land surveying affairs. Editorial/Advertising Offices: 5355 E. 38th Street, Suite 209

Indianapolis, Indiana 46218 317/546-0188

Advertising rates, closing dates, circulation data on request. Contributed articles. photographs subject to space limitations. Gary Kent

CONTENTS

Masthead Contents	1 2 3
President's Message	2
State Board of Registration to File Injunction	1 4
1st Annual Cvil Engineering	1 4
Professional Development Seminar	
Legislative Experience III	4
History Buffs - Let's Hear From You !!	4
ISPLS Chapter News	6
35th Annual ISPLS Convention	8
Purdue University Calender	10-15
	16
ISPLS Member News	17
John Schneider - President-Elect	18
Standards Workshops Successful	18
Highlights of Recent ISPLS Board Meetings	18
NCEE Adopts New Definition of	
Engineering Surveying	20
ACEC Studying Multi-Prime Contract	20
Mine Surveying Congress to Meet in USA	20
ACSM-ALTA Adopt New Minimum Standards	
for Land Title Surveys	21-27
Schedule C and the IRS	28
ACSM Affiliate News	29
ISPLS Firm Members	30
ISPLS Sustaining Members	
ISPLS Application	31
	32

Our markers are guaranteed to rust.

Harrison monuments are made of cast iron. When cast iron oxidizes it forms a tough, protective coating. Rust. Nature's paint!

Past generations have proven how effective this protection has been for preserving anything made out of cast iron. Other metals corrode, flake apart and self-destruct.

Harrison's have been designed to resist side thrusts and soil shifts —to be magnetic —to break off when struck (leaving the base in position).



But the prime element of their design is 100% cast iron which rusts, giving you the most permanent magnetic marker possible.

When you invest so much into locating a corner, why put less than the best into it? Mark it with the best: a Harrison, protected with nature's paint—rust!

Harrison Marker and CO Instrument CO

Box 66, Anoka, MN 55303 Telephone: (612) 421-1445





INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS, INC.

5355 East 38th Street, Suite 209 Indianapolis, Indiana 46218 317-546-0188



PRESIDENT'S MESSAGE

Dear Fellow Surveyors:

The Indiana Survey Standards were adopted January 17. 1986 by the general membership of ISPLS. As of this date there are only a handful of surveying firms in the state that are using the new surveying standards in the performance of their surveys.

This is a matter of great concern to me and the Society. You have said that you want standards to help you decrease your liabilities and to force your peers to raise their level of professionalism, but there are several of you out there who are procrastinating their use.

Indiana Surveyors are among the leaders in the nation in the area of standards and professionalism, but there are many of you who do not see the benefits of our new standards. Wake up or be left behind! These standards are going to become law in a few short months. Are you going to be ready to advance with the profession?

Carl Anderson, Wes Day (instructors at the workshops for the standards) and members of the Board of Directors will be available at the Annual Convention at Purdue University on January 14, 15 and 16 in 1987 to answer your questions about the standards and how they effect you today and how they will effect your practice and your liabilities after they are adopted by the Indiana Board of Registration.

The Indiana Society of Professional Land Surveyor's goal is to help you, the professional land surveyor, but you must make an effort, join the Society and get involved with the profession and your continuing education.

I'll leave you with these questions: Do you criticize the actions of ISPLS? What have you done lately for your profession? Are you up to date with your surveying practice? Are you an asset to your profession?

ISPLS does not want to criticize you, we want to help you and your profession grow.

I will plan on seeing you at the Annual Convention at Purdue in January.

Professionally yours.

Patrick N. Cunningham

STATE BOARD OF REGISTRATION TO FILE INJUNCTION

The Indiana Board of Registration for Professional Engineers and Land Surveyors voted at its last meeting to file an injunction against John Otto, a Pennsylvania Registered Surveyor who is practicing Land Surveying in Indiana without an Indiana Registration. Mr. Otto had applied for comity from Pennsylvania, but was turned down by the Board on the basis of having had only an 8 hour examination. The Northeast Chapter of ISPLS initiated this action in a letter to the Indiana Attorney General which detailed surveys made in Indiana that were sealed with a Pennsylvania Registration.

First Annual Civil Engineering Professional Development Seminar

On Thursday December 4th, Purdue University will be hosting a conference to update practicing Civil Engineers on current issues of prime interest to the professional. Various management and technical programs will be presented throughout the day. The program lists topics varying from Tort Reform in Indiana to Professional Liability Insurance and Avoiding Liability in Civil Engineering. Registration includes coffee and rolls in the morning and a luncheon.

LEGISLATIVE EXPERIENCE III

On December 9, 1986, ISPLS, ISPE, the Indianapolis Scientific and Engineering Foundation and the Consulting Engineers of Indiana will once again host a legislative forum at the Adams Mark Hotel in Indianapolis.. The breakfast buffet and meeting will feature State Senators Louis Mahern and Michael Rogers, Mr. Taylor Cosby of the American Consulting Engineers Council and Mr. David Campbell representing the Indiana Forum for Civil Justice. Professional Surveyors and Engineers are encouraged to invite their state representatives and senators to attend and learn about various legislative matters of concern to the engineering and surveying communities. Registration is \$15 per person and entire tables of ten may be reserved for \$150.



Serving You Direct In Northern Indiana and Chicago Area













- Total Stations
- Optical TheodolitesElectronic Distance
- Meters
 Plummets
- Lasers
- Computer Systems
- Support

- Electronic Theodolites
- Data Terminals
- Levels
- Tripods
- Gyros
- Surveying Software
- Training
- Accessories





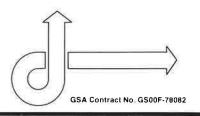




Whatever your surveying needs and related computer requirements for Software, Hardware, or Peripherals — take advantage of Wild's unmatched reputation for quality, service and value.

- Computer Systems Sales, Training and Support (Hardware & Software)
- Instruments and Field Support (Sales, Service and Rentals, including FREE Loaners)
- On-Site Demonstrations and Delivery
- Wild Lease Program

PLEASE CALL TOLL FREE 1-800-645-9190





Wild Heerbrugg Instruments, Inc. P.O. Drawer P, Farmingdale, NY 11735 800-645-9190 • In NY State 800-528-2829 or 516-293-7400



HISTORY BUFFS - LET'S HEAR FROM YOU!!

(Is This Corner Stone Familiar?)

The monument pictured below was found recently by Section Corner Hunter "Extraordinair" Ray Hatfield. Ray discovered the monument next to a field stone at the West Ouarter corner of Section 19 in Township 3 North, Range 1 East and is soliciting information on its history. Orange County survey records are limited due to an early twentieth century courthouse fire. The stone extends 5 feet above the ground surface and measures 10 by 18 inches. It is supported by steel brace posts.

Engravings are no longer totally visible, but the following can be discerned:

SOUTH FACE	WEST FACE	EAST FACE
2 PRINCIPAL MERIDIAN BY EBN BUCKINGHAM	S 24 T1R3NTH ONE WEST OCT. 15 st 1806 BY X SUTTLE STONE GOVT. Mt SER.YOR	EAST HALF MILE S 19.3.N. ONE 1 JUNE 1 1806

Those with information or thoughts may contact Ray at: RR 3 Box 491 Paoli, Indiana 47454





compensator. To optimize accuracy and operation. FOURTHE

Series E – the new electronic line from Carl Zeiss.



Zeiss Elta 3 – the Total Station that is the most advanced instrument in its class: versatile, precise and easy to operate. Determination and automatic compensation of the

vertical and horizontal axis inclinations. Automatic correction of instrument errors in angle and distance measurements. Interface for connection to EDP systems.

Automatic compensation of vertical and horizontal axis inclinations

Zeiss Elta 3 the Total Station

with two-axis

Correction of circle eccentricity

Automatic compensation of error effects in angle and distance measurement

Dual display window on front and rear

VHKNZeiss West Germany **∌**ta 3

For details contact: Surveying Instruments Division Carl Zeiss, Inc. · One Zeiss Drive Thornwood, NY 10594 · (914) 681-7367

ISPLS CHAPTER NEWS

Northeast Chapter

The Northeast Chapter of ISPLS has had a number of important and interesting topics on its agenda of late. Earlier this year action was taken by the Chapter in order to attempt to prevent persons other than Registered Surveyors from writing legal descriptions. A proposal has been made asking that the Allen County Surveyor's Office pay \$100.00 for the perpetuation of any new corner stones. The Chapter has also been dealing with an individual who is not registered as a surveyor in Indiana, but who is practicing surveying in this state on a Pennsylvania License. This information was forwarded to the Indiana Attorney General's Office. [Editor's Note: See additional information on this item elsewhere in this issue]. Finally, the Northeast Chapter is considering hosting the 1990 ISPLS Convention in the Fort Wayne Area.

Northwest Chapter

Bob Bigelow and his committee are making early progress in their plans for the 1988 ISPLS Convention to be held at the Merrillville Holiday Inn. Those who attended the 1981 ISPLS Convention will remember the spectacular facilities at Merrillville.

Central Indiana Chapter

CIC has been meeting regularly again with very good attendence at its past several dinner meetings. In October, Indianapolis Airport Authority Surveyor Ross Holloway presented an excellent slide show and talk on the extensive remonumentation and control survey at the Indianapolis International Airport. The September meeting was hosted by Doug Lechner, Johnson County Surveyor, who conducted a tour of the beautifully renovated Johnson County Courthouse.



Johnson Co. Surveyor Doug Lechner guides Don Borches through the renovated courthouse.

St. Joseph Valley Chapter

The St. Joe Valley Chapter donated \$100 to the ISPLS Scholarship Fund at Purdue this past spring and is currently investigating the possibility of taking advantage of current tax law to increase the size of members' donations.

all veyingering eds!
Surveying ering
Reeds!
Calculation needs! 143 KIMBALL HILL ROAD, HUDSON, NEW HAMPSHIRE 03051

(603) 889 - 2670

BENCHMARK SURVEY SYSTEM

Our flagship product is The Benchmark Survey System, a program designed to be flexible, powerful and easy to use. The Benchmark Survey System works with all popular EDM data collectors and most popular plotting and drafting systems including Starplot and AutoCAD. The Benchmark Survey System program is updated frequently to accommodate recommendations from our large user base. These updates are provided FREE for the first year and at a very nominal fee thereafter. Our sole business purpose is to provide complete and affordable software for surveyors and engineers.

OTHER SOFTWARE

- * Coordinate Plotting
- * Hydrology
- * Sewer Design
- * Spread Sheet
- * Accounting
- * Word Processing * Computer Aided Design
- * Data Base

HARDWARE

- * Apple Series
- * IBM PC & compatibles
- * Printers Letter-quality & dot-matrix
- * Video Monitors
- * Disk Drives

- * 10 Key Pads
- * Plotters & Digitizers
- * Complete stock of compatible peripherals

WE SERVICE, SELL AND RECONDITION THE COMPLETE P-LINE OF OLIVETTI SURVEYING COMPUTERS

IF YOUR NEEDS ARE SPECIAL, AVAIL YOURSELF OF OUR CONSULTATION SERVICE. WE CAN CREATE CUSTOMIZED SOFTWARE TO SATISFY YOUR NEEDS.

35th ANNUAL INDIANA STATE OF THE PORT OF T

STEWART CENTER PURDUE UNIVERSITY WEST LAFAYETTE, INDIANA

JANUARY 14-16, 1987







School of Civil Engineering, Purdue University

Purdue University

Indiana Society of Professional Land Surveyors

Continuing Education — Conferences,

PROGRAM 1987 Indiana Land Surveyors Conference

All technical sessions held in Stewart Center (Eastern Standard Time)

WEDNESDAY, January 14, 1987

10:00 a.m.- 1:00 p.m. REGISTRATION
East Foyer, Stewart Center

12:00 noon Lunch (on your own)

12:00 noon-6:00 p.m. EXHIBITS OPEN — Rooms 302-306

GENERAL SESSION A — Room 202

Presiding: John McEntyre, Professor Emeritus, Purdue

1:00 p.m. Welcome and General Remarks

1:15 p.m. What's New With The Exhibitors? (three minutes for each exhibitor)

2:00 p.m. The Professional Image of Land Surveyors

David Hurley, President, Landmark Corporation, Tampa, Florida

3:00 p.m. The Surveying Scene and Today's Economy Ken Gold, President, Western States Surveying, Inc., Houston Texas

4:00 p.m. Evaluation of Boundary Evidence
Ken Anderson, Land Surveyor, U.S. Forest
Service, Bedford

6:00 p.m. Dinner (on your own)

8:00 p.m. Big Ten Basketball Game
Purdue vs. Minnesota
Mackey Arena (on campus)
(ticket included in registration fee)

An Equal Access/Equal Opportunity University

THIS PROGRAM IS A CONTINUING EDUCATION ACTIVITY OF PURDUE UNIVERSITY

THURSDAY, JANUARY 15, 1987

8:00 a.m.-6:00 p.m. EXHIBITS OPEN — Rooms 302-306

	SESSION B-1 (Room 202)		SESSION B-2 (Room 214)		SESSION B-3 (Room 218)
8:30	The Business of Land Surveying Milt Denny, Tuscaloosa, Alabamas	8:30	Rights of Way and Easements Bill Wood, Engineer of Land Acquisition, IDOH, Indianapolis	8:30	Computer Software For Surveyors David South, Indianapolis
10:00	Break	10.00		10:00	Break
10:15	The Business of Land Surveying Milt Denny, Tuscaloosa, Alabama (Continued)	10:00	Experiences With Indiana's New Surveying Standards Carl Anderson, Lebanon (not a duplicate of Fall Traveling Workshop)	10:15 11:45	Global Positioning Systems (GPS) (tentative) Engineer Topographic Laboratories, Virginia Dismiss
11:45	Dismiss	11:45	Dismiss		

12:00 Luncheon — West Faculty Lounge, Memorial Union Building Presiding: **Bob Bigelow**, Past President ISPLS

Installation of Officers — John Dailey, Cleveland, Ohio, NSPS Area 5 Director

An Educational Challenge - Harold Michael, Purdue University, Head of Civil Engineering

	SESSION C-1 (Room 202)		SESSION C-2 (Room 214)		SESSION C-3 (Room 218)
1:30	The Business of Land Surveying Milt Denny, Tuscaloosa, Alabama (REPEAT of Session B-1)	1:30	The Professional Liability Crisis — Panel Discussion Attorney — Gregory Cafourous, Indianapolis	1:30	Computer Software For Surveyors David South, Indianapolis (REPEAT of Session B-3)
3:00	Break		Legislation — Wayne Townsend, Hartford City	3:00	Break
3:15	The Business of Land Surveying Milt Denny, Tuscaloosa, Alabama (Continued)	3:00 3:15	Insurance — Peggy Fassett, Chicago Surveyor — Brad DeReamer, Indianapolis Break The Professional Liability Crisis — Panel Discussion (REPEAT of above)	3:15 4:45	The Organization and Operation of the Bartholomew County Surveyor's Office E.L. Gray, County Surveyor Danny Rice, Sec. Cor. Perpetuation Tom Finkey, County Regulated Drains Dismiss
4:45	Dismiss	4:45	Dismiss		

6:30 Awards Dinner — East/West Faculty Lounges, Memorial Union Building Presiding: Pat Cunningham, President ISPLS

Dinner Music by "Strings and Keys"

Awards Program

Therapy of Laughter - Dr. Joseph Wick, Lafayette, Indiana

11

CBM Computer Center 3390 W. 86th St. Suite D1 Indianapolis, IN 46268 (317)876-1534

Ron Holmes Account Representative

Serving Your Hardware and Software Needs

COMPUTERS IBM, Hewlett Packard, Epson, AT&T, TI & NCR

PLOTTERS
Hewlett Packard, Calcomp & Houston Instruments

SPECIALITY SOFTWARE AutoCAD & CADWrite

CALCULATORS
Hewlett Packard & Texas Instruments

Interested In Joining Your National Association?...

Complete the form below to receive information about the American Congress on Surveying and Mapping.

Yes,	I am	intere	sted i	n rec	eiving	informati	ion
about A	CSM.	Please	send	infor	mation	n to:	

Address _

Telephone _

RETURN FORM TO: ACSM Membership Department 210 Little Falls Street Falls Church, Virginia 22046 703 241-2446





FRIDAY, JANUARY 16, 1987

8:00 a.m.-12:00 noon EXHIBITS OPEN — Rooms 302-306

SESSION D-1 (Room 202)		SESSION D-1 (Room 202) SESSION D-2 (Room 214)		SESSION D-3 (Room 218)		
M Ka En for D a	founty Land Records System furray Rhodes, Kansas City, ansas ingineering/Cadastre Data Base or Purdue University an Pusey, Purdue University	8:30	Indiana's National Cartographic Information Center (NCIC) Dee Gillespie, Purdue University What An Aerial Survey Firm Can Do For You Tom Howell/Don Pridgen, Seymour, Indiana	8:30	Contracting For Surveying Services Bob Wilkinson/Lanny Crawley, Indiana DNR Vic Hedman, USFS, Milwaukee Mark Yates, Corps of Engineers, Louisville Break	
10:15 Mi Ri M Ex La Bo	fichigan's Plat Act ichard Lomax, Lansing, lichigan experiences in Surveying State ands ob Vollmer, Indiana DNR	10:00 10:15 11:45	Break Experiences With Indiana's New Surveying Standards Carl Anderson, Lebanon (REPEAT of Session B-2) Dismiss	10:15	GPS Involvement Indiana Bob Wilkinson, Flood Plain Mapping Vic McCauley, Atterbury Boundary Survey Ross Holloway, Indianapolis Airport Authority Vic Hedman, U.S. Forest Service Dismiss	

12:00 noon Luncheon — East/West Faculty Lounges, Memorial Union Building (with spouses) Presiding: Gary Kent, Vice President ISPLS

> A Fascinating Adventure Called Surveying (Preview Showing of New NSPS Film re-titled "A Matter of Degrees") Robert B. Todd, New Boston, New Hampshire, NSPS President Elect

GENERAL SESSION E — Room 202

	Presiding: Pat Cunningham, ISPLS President							
2:00 p.m.	Land Surveying and the State Registration Board/Panel Discussion: Luther Condre, LS, Indianapolis James Bradley, LS, Fort Wayne		Proposed Legislation Affecting the Land Surveyor — Jake Hall Feedback on New Surveying Standards — Carl					
	Robert Richardson, LS, PE, South Bend Ruthann Sumpter, Public Member, Marion		Anderson New Engineering Surveying Definition — Gary Kent					
2.00	(All Registration Board Members)		Collegiate Liaison — Robert Bigelow Education — Arthur Haase Positivation Pound Living Wesley Pound					
3:00 p.m.	Business Meeting — Indiana Society of Professional Land Surveyors		Registration Board Liaison — Wesley Day Finance and Budget — John Schneider					
	Presiding: Pat Cunningham, ISPLS President	5:00 p.m.						
5:30 p.m.	Bus Leaves From Union Building for BANQUET — Judi Painter's Catering Hall		Exhibitor Door Prizes					
Dresidi		8:00 p.m.	Music — Purdue Musical Organization					
r residi	ng: Don Bengel, President Elect, ISPLS	District Print	Wasie Tarade Wasiear Organization					
6:00 p.m.			p.m. Dancing and Good Listening Jim Alkire Band (7 piece)					

SPOUSES PROGRAM -1987 INDIANA LAND SURVEYORS CONFERENCE

Muriel Milligan

(Willow Creek Silk Flowers)

Closet - Craft consignments)

Above- all from Bell Plaza

Donna Stanley

Spouses Program Co-chairmen: Rowena Dickerson Mary Lou Curtis

PURDUE UNIVERSITY, WEST LAFAYETTE, INDIANA THURSDAY, JANUARY 15

Hostesses: Mary Lou Curtis

East Faculty Lounge

PROGRAM: Craft Demonstrations

8:45 Quilting by Anita Krug (Country Girl Quilt Shop) 9:30 Basket Weaving (Weavers Mill)

8:00 Continental Breakfast

2nd Floor, PMU

10:30 Silk Flower Arranging

11:15 Tole Painting (Gretchen's

2:15 Board bus to Morris Bryant

12:30-1:45 Lunch - Door Prizes (5)

2:00-4:00 Browse Bell Plaza Shops

4:15 Bus returns to Union Bldg.

Smorgasboard

(As above and also includes

Darles Dolls and Bears)

East-West Faculty Lounges

"Therapy of Laughter"

Dinner Music by "Strings & Keys"

SPEAKER: Dr. Joseph G. Wick

10:15 Coffee Break

6.30 AWARDS DINNER

2nd Floor, PMU

LUNCHEON

WEDNESDAY, JANUARY 14 Hostesses: Rowena Dickerson

Kay Anderson

10:00-1:00 Registration Southeast Foyer, Stewart Center Ladies Hospitality Room Open Room 130, PMU Get acquainted: Find old friends and make new ones!

Lunch (on your own) Suggest - Union Market 1:00 AFTERNOON PROGRAM Room 130, PMU Film: "Purdue Newsreel 1985 25 minutes 1:30-4:30 Campus Bus Tour with two stops: Horticulture Bldg and Nat'l Soil

Erosion Lab. 6:00 Dinner (on your own) For suggestions see "Passport to Lafayette" in packet 8:00 Big Ten Basketball

Purdue vs Minnesota

Mackey Arena (on campus)

LADIES HOSPITALITY ROOM 130, Purdue Memorial Union (PMU)

All of spouses program above (including BB ticket, two breakfasts, two luncheons, one dinner, and one banquet) are included in spouse's registration fee of \$55.00

Open Wed. & Thurs. only - Lafayette Room on Fri. SURVEYORS PROGRAM & EXHIBITS in adjacent Purdue Stewart Center.

FRIDAY, JANUARY 16

Hostesses: Kathy Newport Margaret Cunningham Connie Bender

9:00 Breakfast East Faculty Lounge 2nd Floor, PMU Clay Critter Story & Favors Door Prizes (11)

10:00 PROGRAM Lafayette Room, PMU Hair Styling, Paul Mitchell "Freeze & Shine" by Kerrie Snyder

Accessorizing, "Fit To Be Tied" by Sara

LUNCHEON

12,00 Lunch with men East-West Faculty Lounges, PMU New NSPS Film - Robert Todd, NH NSPS President Flect

AFTERNOON PROGRAM Optional Shopping Market Square Tippecanoe Mall Downtown Lafayette (Details to be arranged)

5:30 Bus from PMU to Judy 'Painter's Catering Hall

6:00 Cash Bar

6:30 Banquet & Exhibitor Door Prizes 8:00 Purdue Musical Organization 9:00-11:00 Dancing & Good Listening Jim Alkire Band (7 piece)

11:00 Bus returns to PMU

REGISTRATION FORM

Mail to: Continuing Education Business Office Room 110, Stewart Center

2713-TR

Purdue University, West Lafayette, IN 47907

Organization/Institution_____

I plan to attend the Indiana Land Surveyors Conference on January 14-16, 1987.

City. State _____ Zip Code: _____

_ Spouse's Name _____ Enclosed is the \$125 registration fee

Enclosed is the \$55 registration fee for spouses program Enclosed is the \$25 student registration fee

Please make all checks payable to Purdue University

The Union Club PURDUE MEMORIAL UNION WEST LAFAYETTE, INDIANA 47907 (317) 494-8913

PURDUE HOUSING FORM INDIANA LAND SURVEYORS CONFERENCE January 14-16, 1987

Name		
Street		
City. State	Zip Code	
		a
A serious Duto	Hour	r

1 p.m. check out hour

(CIRCLE PREFERENCE)

Please reserve for

Air Cond. Color TV **Tub-Shower Bath**

DOUBLE (1 Bed, 2 Persons) TWIN (2 Beds, 2 Persons) DOUBLE & TWIN (2 Beds, 2 Persons) \$32.00

GENERAL INFORMATION

REGISTRATION

The registration fee of \$125 for the conference includes all handouts, refreshment breaks, basketball ticket, two luncheons, one dinner, and the banquet. The registration fee for the spouses program is \$55 and includes a like number of meals plus two breakfasts. The special student registration fee of \$25 includes meetings and luncheons only. Please return the attached registration form by January 1, 1987 to assure you of reserved space. Registration will be completed between 10:00 a.m. and 1:00 p.m. January 14 in the East Foyer, Stewart Center.

A very important part of the meeting is the display of surveying, geodetic, and photogrammetric equipment and services which will be held in the Stewart Center Ballrooms (Rooms 302-306). Company and agency representatives will be present to answer your questions concerning the materials exhibited.

LODGING

Requests to the Union Club of the Purdue Memorial Union (adjacent to Stewart Center) should be received by January 1, 1987, for preferential consideration and confirmed reservations. Some reconstruction of the Union Club is underway and rooms may be limited. Write directly to the Union Club, Purdue Memorial Union, West Lafayette, Indiana 47907 or telephone (317) 494-8913. Do not send a deposit. They accept MasterCard and Visa. Union Club guests may use the adjacent Grant Street parking garage at no additional cost with garage tickets validated at the Union Club desk.

Accommodations are also available at reasonable rates at other hotels and motels in the vicinity. Names, locations, and telephone numbers are listed elsewhere in this brochure. Reservations should be made as far in advance as possible by contacting directly the hotel or motel of your choice.

LODGING (Other than Union Club)

() approximate miles to campus
(4)	Budget Inn, I-65 and 26
(1)	Family Inn, 1920 Northwestern,
	West Lafayette
(3)	Devon Plaza Motel, 2371 N. 26th St.,
	Lafayette
(2)	University Sheraton Inn, U.S. 52 and
	Cumberland, W. Lafayette 463-5511
(3)	Best Western Motel, 400 Sagamore
	Pkwy. S., Lafayette
(4)	Holiday Inn North, I-65 and 43,
	Battle Ground
(4)	Howard Johnson Motor Lodge, I-65
	and 26, Lafayette 447-0575
(4)	Ramada Inn, I-65 and 26, Lafayette 447-9460
(11/2)	Prestige Inn, U.S. 52, W. Lafayette 463-1531

(3)	Sagamore Inn, 2200 Sagamore Pkwy. N.,
	Lafayette
(1/3)	TraveLodge, North River Road,
	W. Lafayette
(4)	Red Roof Inn, I-65 and 26,
	Lafayette
(4)	Signature Inn, I-65 and 26,
	Lafayette
Pleas	e make above housing reservations directly to the mo-
	f your choice.

PARKING

If you drive, please park in the 627-car Grant Street parking garage across the street (east) from the Purdue Memorial Union. The daily fee is \$2.00 with hourly rates for lesser time. Should the Grant Street parking garage be full, please contact the garage attendant for alternate parking areas.

PROGRAM PLANNING COMMITTEE

Carl Anderson, Lebanon Lee Bender, Brookston Don Craig, Richmond Bob Gross, Lafavette Pat Cunningham, Lafayette John DeMais, West Lafayette Brian Dickerson, Lafayette Larry Holderly, Lafayette John McEntyre, West Lafavette James Milligan, Monticello Steve Murray, West Lafayette Thomas Newport, Walton Alan Stanley, Greencastle

The year 1987 celebrates the 100th anniversary of the organization of the School of Civil Engineering at Purdue University. This program starts the year-long celebration.

FOR ADDITIONAL INFORMATION

About Registration, write or call: Tom Robertson Conferences, Rm. 116, Stewart Center Purdue University West Lafayette, IN 47907 Phone (317) 494-7231

About Content, write or call: Kenneth Curtis Civil Engineering Purdue University

West Lafayette, IN 47907 Phone (317) 494-2165

TAX DEDUCTION FOR EDUCATIONAL EXPENSES

Treasury regulation §1.162.5 permits an income tax deduction for educational expenses (registration fees and cost of travel, meals, and lodging) undertaken to: (1) maintain or improve skills required in one's employment or other trade or business, or (2) meet express requirements of an employer or a law imposed as a condition to retention of employment, job status, or rate of compensation.

CALENDER

January 14-16, 1986

35th Annual ISPLS Conference Purdue University

March 28- April 4, 1987

Various Short Courses sponsored by ACSM including Building GIS/LIS Systems, Projections and Coordinate Systems, Marketing Professional Services for Surveyors, The Surveyor and Professional Liability, Evidence and Procedures for Boundary Locations and An Overview of Hydrographic Surveying. (Baltimore, MD)

March 29- April 3, 1987

ACSM-ASPRS Spring Convention Baltimore, Maryland

TOTAL SOURCE: for electronic total stations



Lietz SET 3





Topcon GTS-3

instruments are data collector and computer compatible. We're also your total source for service, rentals. supplies ... everything in

Look into a choice of

instruments, with the

components needed to

create a total "field to

the top electronic

finish" system. All

survey equipment.

Wild T1000/DI 1000

INSTRUMENTS Phone: (314) 968-2282

170 East Kirkham

ISPLS MEMBER NEWS

Meet The Members

Edward A. Good is a retired member of ISPLS. Ed is from Indianapolis and was formerly the Executive Director of the Indiana Society of Profesional Engineers. He attended Purdue University after graduating from Leesburg High School. Golf and various civic activities including church and ISPE keep him occupied during his retirement. Ed would like to see ISPLS keep the good conventions and workshops that are held throughout each year.

Member News

Purdue University Land Surveying School Alumnus Dale V. Weaver, now vicepresident of Chicago Guarantee Survey Company, has honored the retirement of Purdue Professor John McEntyre with a donation of \$100.00 to the ISPLS Surveying Scholarship Fubd at Purdue.

Former ISPLS President Roger Woodfill is a candidate for NSPS Director from Area 5. Roger currently sits on the ISPLS Board and is a former Vice President of NSPS.

Brady Land Surveying Inc. has named ISPLS member Loren K. Stackhouse President of the firm. Mr. Stackhouse has been with Brady Surveying since 1963. ISPLS is pleased to welcome new Sustaining Members SURV/KAP, Inc., Ellerbusch Instrument Company and Wild Heerbrugg Instruments, Inc.

Firm Member Merrill A. Jones & Associates, Inc. of Greenwood, Indiana has changed its name to MAJ Civil/Surveying Inc.

Schneider Engineering Corporation of Indianapolis is the newest ISPLS Firm Member.

ISPLS registered membership now stands at 224, the highest ever. Among the noteworthy includes new Life Members Philip Thornburg of Richmond and Lowell Ford of Kentland. Phil is a Charter Member of ISPLS.

Members of the ISPLS family Orwic and Betty Johnson, Dan and Donna Pusey, Roger and Jean Woodfill, Gary and Linda Kent, and Nelson Prall were all seen at the ASPRS-ACSM Fall Convention held in Anchorage, Alaska. Those who have never been to a national convention are missing the boat. Next spring, ACSM will be in Baltimore with the fall meeting being held in Reno, Nevada.

Completed Careers

It is with regret that we report the recent death of ISPLS Charter Member Dale Long.

John Schneider to be President-Elect in 1987

John V. Schneider, President of Schneider Engineering Corporation of Indianapolis and former President of ISPLS has been elected to the position of President-Elect for 1987. John was President of ISPLS in 1977 and will serve in that capacity again in 1988. Don Bengel, the current President-Elect, will take over as President at the ISPLS January convention at Purdue.

Standards Workshops Well-Attended and Successful

The four fall workshops jointly organized by the ISPLS Continuing Education and Standards Committees were extremely well attended and provoked a state-wide look at the new Indiana Survey Standards. The workshops, held in Plymouth. Indianapolis, Princeton and Seymour were attended by nearly two hundred persons, almost twice the expected turnout. Presentors Carl Anderson and Wes Day discussed and answered questions on the newly required "Surveyor's Report" and helped attendees compute a sample "Theoretical Uncertainty" problem. It is the opinion of the Standards Committee that the "Surveyor's Report" represents one of the most basic and important changes required by the Standards. Additional workshops and discussions are planned for the January 1987 ISPLS Convention and throughout 1987.

Highlights of Recent ISPLS Board Meetings

Among the actions of the ISPLS Board in 1986 were the following: Selection of Northeast Chapter as the host for the 1988 ISPLS Convention and Central Indiana Chapter for 1989; Continued liason and meetings with Purdue University in attempting to maintain the viability of the Land Surveying Program; Discussions with Indiana Department of Natural Resources regarding recommendations of specific individuals and price quotes to prepare forest classification surveys; Extended the contract of Lobbyist Jack Ryan to assist in attaining ISPLS legislative goals; Agreed to pursue Continuing Education, Statutory Adoption of Registration Board Rules Changes, Surface Mining Act and Plat Act Bills in the 1987 Legislative session; Directed the Public Relations Committee to finalize the slide program and to have the various ISPLS promotional slide and movie programs put on video tape for members' use; Donated \$500 each to the Vincennes and Purdue Scholarship Funds; Directed the interim reprinting of several ISPLS manuals in high demand by persons sitting for the LS exam; Contacted the PA-X Committee to offer surveying services related to the Pan Am Games to be held in Indianapolis in 1987.

Land Ownership Landmarks & Hroperty Lines

he privilege of Land Ownership is one of our most prized rights. Not all citizens of the world have the right to own their own land. It has been said that Land Ownership is the foundation of material wealth. Land like everything else, is a gift from God.

he Land of Canaan was divided among the twelve tribes by lot (Jos. 14:2). Landmarks such as marked stones were used as land division line markers for these lines and for other lines as early as 3000 B.C. Present day land markers take many different forms but mostly they are iron stakes with marked caps. In Deuteronomy 19:14, God gave implicit directions to the first planters of Canaan, to fix land marks according to the distribution of the land and forbid the mischievous removal of these markers, as such removal begets discord among neighbors, and thence come wars, and fightings, and endless disputes.

e as stewards of Gods Land must guard and protect our property lines and landmarks from destruction so that peaceful co-existence among neighbors and nations can be perpetuated.

"Proverbs 22:28 - Remove not the ancient landmarks which your fathers have set."

Distributed in promotion of Surveyors Week by the National Society of Professional Surveyors

NCEE Approves New Definition of "Engineering Surveys"

The National Council of Engineering Examiners (NCEE) has adopted a new definition of "engineering surveys" as a part of the definition of the "practice of engineering" in the NCEE Model Law. The definition, adopted by NCEE at its 65th Annual Meeting on August 12th in St. Louis, reads as follows: "Engineering Surveys include all survey activities required to support the sound conception, planning, design, construction, maintenance and operation of engineered projects, but exclude the surveying of real property for the establishment of land boundaries, rights of way, easements and the dependent or independent surveys or resurveys of the public land survey system." The new definition was opposed by ACSM in St. Louis, but was supported by ASCE which urged NCEE to adopt it immediately. A variety of situations came together to cause the adoption of the new definition according to Mr. Harry Parker, President of NCEE who spoke at the NSPS Board of Governors Meeting in Anchorage. Mr. Parker assured the Board of Governors that he would assign a committee to look at the effect of the new "engineering surveys" definition and at the definition of the practice of surveying in the coming months.

Multi-Prime Contract Studied

It has been reported in the American Consulting Engineers Council News that several ACEC committees have laid the groundwork for completion of a multi-prime agreement. A multiple contract arrangement would allow for direct contracts between an owner and the various design professionals such as architects, engineers and surveyors. The current goal is to have the documents ready for use within a year. The new documents will allow a consulting engineer or surveyor to deal directly with the owner rather than being a subcontractor to the architect. Payments from the owner would be made directly to each contractual partner. ACEC notes that the standard AIA contract between an architect and an engineer is contract number C-141. ACEC has developed a publication pointing out possible problem areas in this contract. The publication is entitled Commentary on AIA C-141 and may be ordered from the ACEC Publications Department for

Mine Surveying Congress Set for United States

The United States has been selected by the Congress of the International Society for Mine Surveying as host for the VIII Congress to be held September 23-27, 1991. ACSM and the University of Kentucky will be co-sponsoring the meeting. The Congress Committee is looking for suggestions and volunteers in many areas including program, social and technical tours, finance and lodging. Contact Carl S. Vender, Congress Director at 606 N. 8th Street, Bismark, North Dakota 58501-4102 (701/223-1771)

ACSM-ALTA APPROVE REVISED LAND TITLE SURVEY STANDARDS

After more than a year of effort, the American Congress on Surveying and Mapping and the American Land Title Association have updated the Minimum Standard Detail Requirements for Land Title Surveys initially adopted in 1962 by the two organizations.

A geographically diverse group of members from the two organizations joined in the effort after it was agreed that various technical and legal changes in the last 25 years had rendered the 1962 standards obsolete.

The new standards are printed in their entirety below. In a future issue of <u>Hoosier Surveyor</u> comments from professionals in Indiana regarding these new standards will be featured.

MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS

The "Minimum Standards for Property Boundary Surveys," adopted by the American Congress on Surveying and Mapping (ACSM) in 198, are recognized as clear and concise technical standards for property-line surveys, and are so recommended. However, it is also recognized that members of the American Land Title Association (ALTA) have specific problems, peculiar to title insurance matters, which require particular information in detail and exactness for acceptance by title insurance companies when said companies are asked to insure title to land without exceptions as to the many matters which might be discoverable from survey and inspection and not be evidenced by the public records. In the general interest of the public, the surveying profession, title insurers and abstracters, the American Land Title Association and the American Congress on Surveying and Mapping jointly promulgate and set forth such details and criteria for exactness. It is understood that local variations may require local adjustments to suit local situations, and often must be applied. It is recognized equally that title insurance companies are entitled to, and should be able to, rely on the evidence furnished to them being of the appropriate professional quality, both as to completeness and as to accuracy; that it is equally recognized that for the performance of a survey, the surveyor will be provided with appropriate data which can be relied upon in the preparation of the survey.

For a survey of real property and the plat or map of the survey to be acceptable to a title insurance company for purposes of insuring title to said real property free and clear of survey questions (except those questions disclosed by the survey and indicated on the plat or map), certain specific and pertinent information shall be presented for the distinct and clear understanding between the client (insured), the title insurance company (insurer), and the surveyor (the person professionally responsible for the survey). These requirements are:

- (1) The client, at the time of ordering a survey, shall notify the surveyor that an "ALTA/ACSM LAND TITLE SURVEY" is required, meeting the accuracy requirements of a Class A, B, C, or D Survey as defined herein, and shall furnish to the surveyor the record description of the property and the record easements or servitudes and covenants affecting the property to which the "ALTA/ACSM LAND TITLE SURVEY" shall subsequently make reference. The names and deed data of all adjacent owners as available, and all pertinent information affecting the property being surveyed, shall be transmitted to the surveyor for notation on the plat or map of the survey. If the area of the parcel is required, the client shall so, indicate to the surveyor. If the plat or map of survey is to include thereon a note as to zoning classification of the property, the client shall so clearly indicate to the surveyor. If applicable, the surveyor shall be informed by the client of any survey requirements of the Department of Housing and Urban Development, the Veterans Administration or any other government agency or entity.
- (2) The plat or map of such survey shall bear the name, address, and signature of the professional land surveyor who made the survey, his or her official seal and registration number, the date of the survey, and the caption "ALTA/ACSM Land Title Survey" with the certification set forth in paragraph 8.
- (3) An "ALTA/ACSM LAND TITLE SURVEY" shall be Class A, B, C, or D, in accordance with the "Classification on Specifications for Cadastral Surveys" as adopted by the American Congress on Surveying and Mapping on March _____, 1986, and attached hereto and incorporated herein. Should these above cited specifications be in conflict with state laws, rules or regulations, the more stringent requirements must be followed.
- (4) On the plat or map of an "ALTA/ACSM LAND TITLE SURVEY," the survey boundary shall be drawn to a convenient scale, with that scale clearly indicated. A graphic scale, shown in feet or meters or both, will be included. When practicable, the plat or map of survey shall be oriented so that North is at the top of the drawing. If required, supplementary or exaggerated diagrams shall be presented accurately on the plat or map. No plat or map drawing less than the minimum size of 8 and 1/2 inches by 11 inches will be acceptable.
- (5) The plat or map of an "ALTA/ACSM LAND TITLE SURVEY" shall contain, in addition to the required items already specified above, the following applicable information:
 - (a) All data necessary to indicate the mathematical dimensions and relationships of the boundary represented, with angles given directly or by bearings, and with the length of each curve, together with its radius, chord, and chord bearing shown. A bearing base shall refer to true North, or to State Plane Coordinate North, or to some well-fixed bearing line, so that the bearings may be easily re-established. All bearings around the boundary shall read in a clockwise direction wherever possible. The North arrow shall be referenced to its bearing base and should that bearing base differ from record title, that difference shall be noted.

- (b) When record bearings or angles or distances differ from measured bearings, angles or distances, both the record and measured bearings, angles, and distances shall be clearly indicated.
- (c) Measured and record distances from corners of parcels surveyed to the nearest right-of-way lines of streets in urban or suburban areas, together with recovered lot corners and evidence of lot corners, shall be noted. The distances to the nearest intersecting street shall be indicated and verified. Names and widths of streets and highways and the widths of rights of way shall be given. Any use contrary to the above shall be noted.
- (d) The identifying title of all record plats or filed maps which the survey represents, wholly or in part, shall be shown with their filing dates and map numbers, and the lot, block, and section numbers or letters of the surveyed premises. Names of adjoining owners and/or recorded lot or parcel numbers, recording information for last available conveyance, and similar information, where needed, shall be shown. The survey shall indicate set back or building restriction lines which have been platted and recorded in subdivision plats. Interior parcel lines shall clearly indicate contiguity, gores, and/or overlaps. Where only a part of a recorded lot or parcel is included in the survey, the balance of the lot or parcel shall be indicated.
- (e) All evidence of monuments found or placed, shall be shown and noted to indicate which were found and which were placed. All evidence of monuments found beyond the surveyed premises, on which establishment of the corners of the surveyed premises are dependent, shall be indicated. The character of any and all evidence of possession shall be stated and the location of such evidence carefully given in relation to the surveyed boundary lines. An absence of notation on the survey shall be presumptive of no physical evidence of possession along the record line.
- The location of all buildings upon the plot or parcel shall be shown and their locations defined by measurements perpendicular to the boundaries. Proper street numbers shall be shown where available. Observable evidence of easements and/or servitudes of all kinds, such as those created by roads: rights-of-way; water courses; drains; telephone, telegraph, or electric lines; water, sewer, oil or gas pipelines on or across the surveyed property and on adjoining properties if they appear to affect the surveyed property, shall be located and noted. If the surveyor has knowledge of any such easements and/or servitudes, not observable at the time the present survey is made, such lack of observable evidence shall be noted. Surface indications, if any, of underground easements and/or servitudes shall also be shown. If there are no buildings erected on the property being surveyed, the plat or map shall bear the statement, "No buildings."

- (g) The character and location of all walls, buildings, or fences within two feet of either side of the boundary lines shall be noted. Physical evidence of all encroaching structural appurtenances and projections, such as fire escapes, bay windows, windows and doors that open out, flue pipes, stoops, eaves, cornices, areaways, steps, trim, etc., by or on adjoining property or on abutting streets, shall be indicated with the extent of such encroachment or projection. If the client wishes to have additional information with regard to appurtenances such as whether or not such appurtenances are independent, division, or party walls and are plumb, the client will assume the responsibility of obtaining such permissions as are necessary for the surveyor to enter upon the properties to make such determinations.
- (h) Driveways and alleys on or crossing the property must be shown. Where there is evidence of use by other than the occupants of the property, the surveyor must so indicate on his plan. Where driveways or alleys on adjoining properties encroach, in whole or in part, on the property being surveyed, the surveyor must so indicate on his plans with appropriate measurements.
- (i) Cemeteries and burial grounds disclosed in the process of surveying or searching the title to the premises shall be shown by actual location if known. If the client wishes to have the survey reflect observable cemeteries and burial grounds, the surveyor shall be so advised.
- (j) Ponds, lakes, springs, or rivers bordering on or running through the premises being surveyed shall be shown by actual location.
- (k) Streets abutting the premises, which have been legally defined but not physically opened, shall be shown and so noted.
- (6) As a minimum requirement, the surveyor shall furnish two sets of prints of the plat or map of survey to the title insurance company or the client. The prints shall be on durable and dimensionally stable material of a quality standard acceptable to the title insurance company. At least two copies of legal boundary descriptions prepared from the survey shall be similarly furnished by the surveyor. Reference to date of the "ALTA/ACSM LAND TITLE SURVEY", surveyor's file number (if any), political subdivision, section, township and range, along with appropriate aliquot parts thereof, and similar information shown on the plat or map of survey shall be included with the boundary description and incorporated for documentation.
- (7) Water boundaries are subject to change due to erosion or accretion by tidal action or the flow of rivers and streams. A realignment of water bodies may also occur due to many reasons such as deliberate cutting and filling of bordering lands or by evulsion. Recorded surveys of natural water boundaries are not relied upon by title insurers for location of title.

When a property to be surveyed for title insurance purposes contains a natural water boundary, the surveyor shall measure the location of the boundary according to appropriate surveying methods and note on the plan the date of the measurement and the caveat that the boundary is subject to change due to natural causes and that it may or may not represent the actual location of the limit of title.

8. When the surveyor has met all of the minimum standard detail requirements for an ALTA/ACSM Land Title Survey, he shall make the following certification on the plat:

To (name of client) and (name of title insurance company, if known):

This is to certify that this map or plat and the survey on which it is based were made in accordance with "Minimum Standard Detail requirements for ALTA/ACSM Land Title Surveys," jointly established and adopted by ALTA and ACSM in 198_; and meets the accuracy requirements of a Class __ Survey, as defined therein.

(signed)_			(seal)
	Registration	No.	

Adopted by the Board of Direction, American Congress on Surveying and Mapping

Adopted by the Board of Governors, American Land Title Association

AMERICAN CONGRESS on SURVEYING and MAPPING

Classification and Specifications for Cadastral Surveys

INTRODUCTION

The degree of precision necessary for a particular cadastral survey should be based on the intended use of the land parcel, without regard to its present use, provided the surveyor has knowledge of the intended use.

Four general survey classes are defined using various state regulations and accepted practices. These general classes are listed and defined in table 1 below.

The combined precision of a survey can be statistically assured by dictating a combination of survey closure and specified procedures for a particular survey class. Table 2 lists the closures and specified procedures to follow in order to assure the combined precision of a particular survey class. The statistical base for these specifications is on file at the ACSM and available for inspection.

TABLE 1

SURVEY CLASSES BY LAND USE

CLASS A - URBAN SURVEYS

Surveys of land lying within or adjoining a City or Town. This would also include the surveys of Commercial and Industrial properties, Condominiums, Townhouses, Apartments and other multiunit developments, regardless of geographic location.

CLASS B - SUBURBAN SURVEYS

Surveys of land lying outside urban areas. This land is used almost exclusively for single family residential use or residential subdivisions.

CLASS C - RURAL SURVEYS

Surveys of land such as farms and other undeveloped land outside the suburban areas which may have a potential for future development.

CLASS D - MOUNTAIN and MARSHLAND SURVEYS

Surveys of lands which normally lie in remote areas with difficult terrain and usually have limited potential for development.

AMERICAN CONGRESS on SURVEYING and MAPPING

CLASSES OF SURVEYS

	MINIMUM LENG' OF MEASUREMENT' (8), (9), (10)	(8) 81m, (9) 153n (10) 20m	(8) 54m, (9) 102n (10) 14m	(8) 40m, (9) 76m (10) 10m	(8) 27m, (9) 51m (10) 7m
	DISTANCE MEASUREMENT (7)	EDM or Doubletape with steel tape	EDM or steel tape	EDM or steel tape	EDM or steel tape
	LINEAR CLOSURE (6)	1:15,000	1:10,000	1:7,500	1:5,000
	ANGLE CLOSURE WHERE N= No. OF STATIONS NOT TO EXCEED	10" IN	15" N	20" IN	30" । ग्र
3	SPREAD FROM MEAN OF D&R NOT TO EXCEED (5)	5" <0.1"> 5"	10" <0.2'> 10"	20"×0.3'>[20"]	30"×0.5'> 30"
	NUMBER OF OBSERVATIONS PER STATION (4)	2 D&R	2 D&R	l D&R	1 D&R
	HEADING ESTIMATED (3)	20" <11'> 10" 5" <0.1'> N.A.	10" <0.1"> N.A.	N.A.	N.A.
	CLASS OF READING INSTRUMENT CLASS OF READING INSTRUMENT ESTIMATED (2) (3)	20" <1'>10"	20" <1'>10"	(20°×1'> 20° N.A.	(I) d'yII N.A.
	SURVE	Æ	м	υ	۵

벙 of survey. class particular that for qualify and etc. satisfied in order to number of angles turn All requirements of each class change the other requirements, 3 5

an reading of 6

theodolite

reading transit. reading theodolite, Micrometer 20"

to the specified reading. reading the direct Note (3) Instrument must have the capability of allowing an estimated reading below

angles that Class positions of the instrument telescope. the Direct and e measured and Note (4) D & R means the the reverse position be

rejected and the set of angles re-measured. 8 mean must Note (5) Any angle measured that exceeds the specified amount from the

closure calculated. Note (6) Ratio of closure after angles are balanced and

of 5mm,independent of distance measured (Manufacturers Specification) entor Note (8) EDM having an Note (7) All distance scale factor and sea

calibrated EDM

with

Schedule C can be red flag for IRS audit

By Irving L. Blackman

If you haven't incorporated your business yet, here's yet another very good reason to do so. You know that Schedule C you file every year as a sole proprietor? Well, it may say Schedule C on the top of the form, but as far as the IRS is concerned it spells A-U-D-I-T. That same form may be leading you straight into the jaws of the government's revenue collecting machine. Here's why.

Over the years, in the IRS audit selection process, where the IRS decides what returns have a high likelihood of turning up irregularities and generating additional tax liability, Schedule C has become Public Enemy #1 — especially if that Schedule C reports gross receipt of more than \$100,000.

You may get serious about drawing up those articles of incorporation after considering these facts: 1.12% of incorporated businesses with gross receipts of under \$100,000 were audited in 1983. The audit chances for corporations does not increase dramatically until receipts reach \$1 million. The audit breakdown for 1983 for unincorporated businesses filing Schedule C was:

Under \$25,000	1.43%
\$25,000 to \$100,000	2.56%
\$100,000 and over	5.30%

Why the difference in treatment between corporations and sole proprietors with the same amount of gross receipts? The IRS cynically assumes that, unlike the corporation that must keep a formal set of books, the unincorporated entrepreneur doesn't do so, and routinely underreports his income.

Here is how the IRS auditor will try to catch you with your underreported income pants down. First, he'll ask you how much income other than that reported on Schedule C you received and where it came from. Next, he adds up all deposits that were made to all your bank and investment accounts. Are you getting a little uneasy? Loosen your tie. Why? because the auditor is about to slam you with unreported income using figures and the following formula:

Hypothetical Example:

Total Deposit Minus: Schedule C receipts	\$210,000 \$145,000
Minus: Other reported income	\$ 65,000 \$ 15,000
Minus: Loan Proceeds received	\$ 50,000 \$ 10,000
Unreported Income!	\$ 40,000

The answer you give to wriggle out of this embarrass-

Your Taxes

ing situation is simple: The excess deposits aren't unreported income, they're merely transfers from one account to another. And then you better be prepared to document that explanation. Otherwise, you're looking at additional tax, interest and penalties. So my word of advice to you Schedule C junkies out there who still refuse to incorporate is this: Keep good bank records and don't make any deposits you can't account for if faced with an audit.

Every year in late January, the IRS issues a warning to taxpayers. The warning goes like this: If you fail to report income on your tax returns, you will be caught. Why? Because the IRS can match your return against income information reports filed by those who paid you the income. If they don't match, you're in trouble.

In the past, for most taxpayers, this warning was a hollow threat — a bluff used to scare them into reporting all their income, Now, the IRS isn't bluffing. If you ignore the annual warning this year, there is a 9 percent chance of being caught — by a computer.

The IRS is close to perfecting its computer system that matches income information with income reported. If you fail to report all your wages, the computer probably will cross-check your return with your W-2 statements. If you fail to report all of your interest and dividend income, the computer can and probably will nail you by comparing your return with Form 1099 interest and divident reports.

Items that are being cross-checked for the first time are alimony payments and mortgage interest payments. If you claim an alimony deduction, you must include your ex-spouse's Social Security number on your return. If you don't, your return won't be processed. If your ex-spouse's alimony income doesn't match your alimony deduction, you'll both be contacted by the IRS to check the discrepancy.

The same thing will happen with mortgage interest payments: If a lender's mortgage interest income doesn't match a borrower's claimed mortgage interest deduction, the IRS will come knocking at both their doors.

Irving L. Blackman is the most published CPA in the country. He also spreads his tax knowledge as a dynamic speaker. Blackman specializes in closely held business and will consult with readers of this column. He is a partner in Blackman, Kallick & Co., Ltd. Direct questions to 300 S. Riverside Plaza, Chicago, Ill. 60606 or call \$12/207-1040.

ACSM AFFILIATES -News From Around the Country

California

The California Surveyor in its Fall 1985 issue reported on an unusual court case. At issue in the case was the fact that a consultant had filed a final subdivision plat after an architect had (unbeknownst to the consultant) claimed sole authorship and filed for copywrite on the preliminary plat. The architect sued after the consultant recorded the final plat claiming the final plat was a "copy" of the preliminary plat which was itself a "presentation of the architect's ideas". The court, in a trial by jury, held that the architect had a right to copywrite the preliminary plat even though he had nothing to do with its preparation. Because of a technicality no damages were awarded. [Editor's Note: A number of facts additional to those mentioned here were relevant in this case and, therefore, one should not draw conclusions from this discussion without further investigation and legal assistance].

Ohio

The Ohio Surveying News reported in its May-June 1986 issue that the PLSO vs. Chicago Title Insurance Company litigation was finally brought to a successful conclusion. Several key issues were addressed in the process of securing the victory and these included the right of professional surveyors and their associations to maintain actions for injunction against unlicensed professional practice; that not all of the

activities listed in the statutory definition of surveying need be performed by an unlicensed practitioner to establish that such unlicensed practice is illegal; and that title companies are no longer practicing surveying in northeast of Ohio. Chicago Title Insurance Company can no longer provide measurements, by either graphic or verbal description, of encroachments, apparent easements or improvements in relation to any real property boundary unless such measurements or descriptions are provided by a survey undertaken by an independent, registered surveyor, and all such surveys must be current.

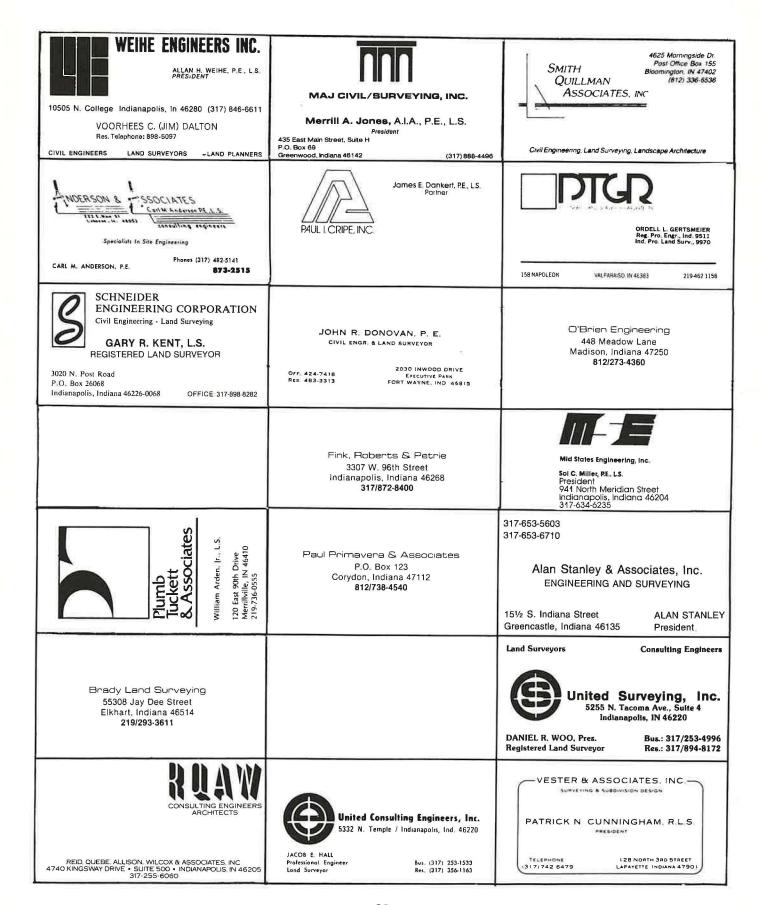
Nebraska

The Nebraska Surveyor reported in its April-June 1986 issue that a new "Surveyors and Land Office Exhibit" in the Stuhr Museum was dedicated on May 18th. The exhibit features numerous artifacts from an earlier era with plans for a model "Surveyor's camp" in the works.

Minnesota

In the April issue of Minnesota Land Surveyors Association News and Views it was reported that on August 1, 1986 a new Minnesota State Statute goes into effect which provides that 1) Upon discovery of a surveying error, it will be necessary to file a suit for damages within 2 years and 2) the discovery must take place within ten years of the date of completion of the work.

Firm Members



30

ISPLS SUSTAINING MEMBERS 1986-1987

Accu-Air Surveys, Inc. PO Box 63, 1220 "A" Ave., Freeman Field Seymour, Indiana 47274

Harrison Marker and Instrument Company
Box 66
Anoka, Minnesota 55303

Kara Company, Inc. 4400 Riverside Ave. Lyons, Illinois 60534

Hickerson Instrument Co., Inc. 6011 E. 34th Street Indianapolis, Indiana 46226

G.Lengeman Company 2314 N. 5th Street PO Box 496 Niles, Michigan 49120

Marbaugh Engineering Supply Co., Inc. 121 W. North Street Indianapolis, Indiana 46204

> Schonstedt Instrument Company 1775 Wiehle Ave. Reston, Virginia 22090

> Ellerbusch Instrument Company 4509 Vine Street Cincinnati, Ohio 45217

> > SURV/KAP
> > P.O. Box 27367
> > Tucson, Arizona 85726

Wild Heerbrug Instruments, Inc. P.O. Drawer P 465 Smith Street Farmingdale, New York 11735

THANK YOU FOR YOUR CONTINUED SUPPORT!!

ISPLS APPLICATION FOR MEMBERSHIP

(Type or Print all information - check box for mailing address desired.)

NAME		First		Mi	iddle	_ AGE
☐ HOME ADDRESS						
Stree	t and Number	City	State	Zip		
☐ BUSINESS ADDRESS	Street and Number	City	State	Zip	_ PHONE _	
PRESENT OCCUPATIONFirm	Name					Position
SCHOOL ATTENDING						
DEGISTRATION STATUS						Grade
L,S.,	P.E., or S.I.T. Number					State
MEMBER OF AMERICAN CONG	RESS ON SURV	EYING AND	MAPPING		Yes	No
MEMBER OF LOCAL CHAPTER O	OF I.S.P.L.S,	Yes	_	No		Chapter
TYPE OF MEMBERSHIP I	SECIPED					- Site Site Site Site Site Site Site Site
I THE OF MEMBERSHIP I	JESINED	Name		REFER! Address		Phone
☐ MEMBER		Name		Address	•	THORE
☐ JUNIOR		2				
□ STUDENT	\$10.00					
Check One						
I hereby certify the above statem the "Indiana Society of Profession						
the indiana Society of Floressi	mai Land Surve	eyors and w	ili promote	and upnor	ia its princit	nes and objectives.
.4						
		Signature				Date
51						

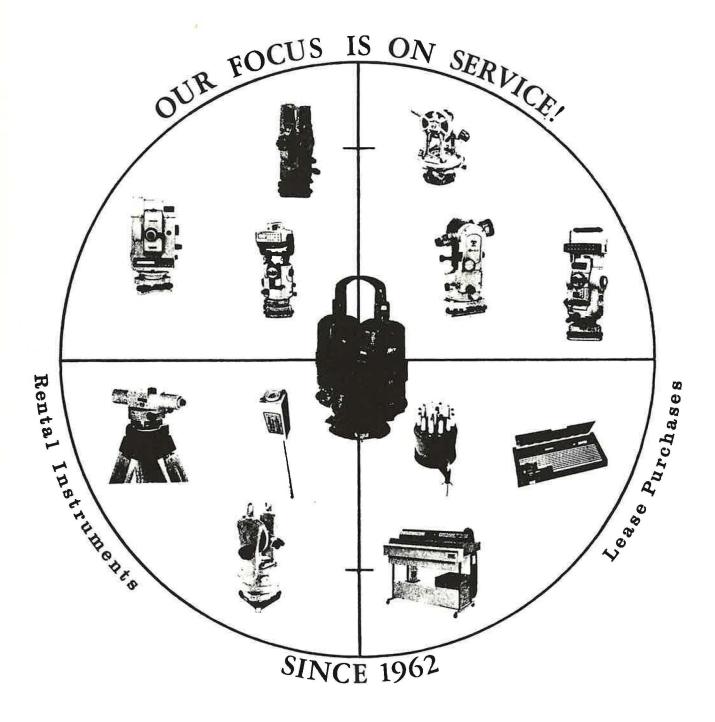
MEMBERSHIP CLASSIFICATIONS

Member: A member of this Corporation shall be limited to Registered Land Surveyors in good standing with the Indiana State Board of Registration for Land Surveyors. A member shall be eligible to vote, hold office and to participate fully in the affairs of the Corporation.
 Junior: A Junior Membership will be granted to those non-registered individuals who are endeavoring to make Surveying their chosen career. A Junior Member is entitled to vote and participate fully in the affairs of the Corporation but shall not be entitled to hold office.
 Associate: An Associate Membership will be granted to anyone who is associated or affiliated with the Land Surveying profession but is not otherwise pursuing registration or any non-resident who is registered and in good standing as a Land Surveyor. An Associate Member is not entitled to vote or hold office but will receive Newsletters and be invited to participate in meetings.
 Student: A Student Member shall have the same eligibility requirements as those of a Junior Member, except that this class of Member-

A Student Member shall have the same eligibility requirements as those of a Junior Member, except that this class of Membership shall apply for a period of four (4) years only. A Student Member is not entitled to vote or hold office but will receive Newsletters and be invited to participate in meetings.

G. Lengemann Company, Inc.

Surveying Equipment and Drafting Supplies Complete Service Department



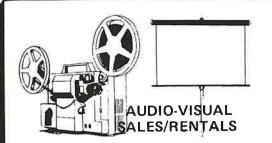
14 N. 5th Street • Post Office Box 496 • Niles, Michigan 49120 1-616-684-2116 Toll Free - Mich. Wats 1-800-632-3923, U.S. Wats 1-800-253-5954 THE HOOSIER SURVEYOR

Indiana Society of Professional Land Surveyors, Inc.

5355 E. 38th Street, Suite 209

Indianapolis, IN 46218

Bulk Rate U. S. Postage PAID Indianapolis, Ind. Permit No. 4056







MARBAUGH ENGINEERING SUPPLY CO., INC.

121 West North Street, Indianapolis, Indiana 46204

Phone: 632-4322

MARBAUGH. . . A NAME YOU CAN DEPEND ON.





